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APPALACHIAN NURSERIES

W. J. BILLERBECK

L. F. BILLERBECK

P. O. BOX 87
FAIRVIEW AVENUE
WAYNESBORO, PENNA. A.R.Y.
RECEIVED
• ★ FEB 6 1961
U.S. Department of Agriculture

LINERS FOR SPRING 1961



Phones:
Nurseries 1179-J
Home 1179-M



Members
American Association Nurserymen
Rhododendron Society
Holly Society
Propagator's Society
Most Nearby State Nursery Associations



PRICES are FOB Waynesboro, Penna. Delivery by our truck direct to your establishment, at very reasonable rates, or you can pick up the stock with your own truck. We make no shipments by common carriers because packing costs and transportation charges are entirely out of proportion.

RATES AND QUANTITY DISCOUNTS: Prices shown are "per 100", but apply to flatfulls. 50-2" banded plants are a flatfull, and 100 rates apply; likewise 24 - 3" banded plants, or 20 - 3" clay pots, or 11 - 4" clay pots, in each case make a flatfull, and the 100 rates apply. To illustrate, 50 Abelias in 2" bands are a flatfull, and 100 rate applies; but, 11 Magnolias in 4" pots are a flatfull, and are sold at 100 rate for the 11 plants. 300 or more plants of a single variety are sold at 5% off the 100 rate quoted; 1000 or more plants of a single variety are sold at 10% off the 100 rate.

NEW TERMS

1. 2% 10 days; net 30 days if you have established credit previously with us. If you have not previously had an account with us, and wish to open one, give us a couple of references: — preferably a bank and a wholesale nurseryman with whom you do business.
2. You don't need cash to buy from us. — That is, not now. All you need is a \$5. bill and either open an account with us (as outlined above in 1) or pay our driver when the stock is delivered. If your order is \$100. or less, please pay the driver. Cost of bookkeeping goes up. Our driver is bonded, and is authorized to receipt your invoices.
3. If you wish to do considerable planting and need your working capital to operate your business, we likely can help. Tell us your story, and we shall try to work out something for you.
4. Special Discount for Early Orders with Payment in Advance. Now and then we have the good fortune to meet up with a nurseryman who is "loaded" with cash. We always wonder how the tax collector missed him. For such auspicious individuals we have a very special discount program to help lighten his load. On orders with cash in full attached RECEIVED BY US BEFORE THE END OF;

January, take 5% discount

February, take 4% discount

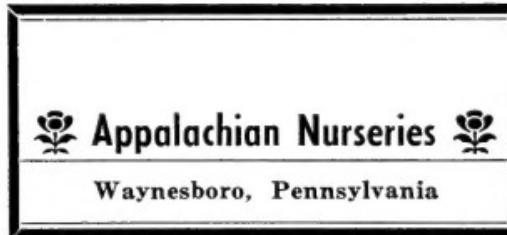
March, take 3% discount

April, take 2% discount

Estimate the delivery charge (from back pages of this catalog) and add it to your order, and take the discount on it too. Acknowledgment will be sent you at once, and if you forward too much money, the overage will be refunded.



OUR TRUCK DELIVERY SERVICE: Because present day packing and transportation costs are much too high, we make deliveries with our own trucks. The trucks are equipped with special bodies,



and the plants are delivered in flats; thus there is no packing charge. Deliveries are made statewide to the following: Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia and West Virginia. We will deliver anywhere we can accumulate orders for a full minimum load. Deliveries will be made of lots of any quantities in the areas and states mentioned above.

DELIVERY CHARGES: See pages 34 to 36.

Customer Service

This being a political year, we consider it not inappropriate for us to do a bit of politicken' ourselves.

If you have ever come in contact with a politician who lets even a minute morsel of his modesty show, you've got yourself a rare bird indeed. So, if we seem to have our skirts pulled a bit high here, please remember, it's politics!

As a friend of ours yourself we don't need to promise you the goose that lays the golden eggs. You already know all about it. You know about our fine merchandise, and our excellent job of Customer Service.



Seriously, — MY FRIENDS, — if you can spare us a few moments, we'd like to remind you of some of our services. WHO for instance;

1. Supplies you such fine plants at such low prices?
2. Delivers the plants right to your door at such low rates?
3. Brings stock to you so you can see it before you accept it?



-
4. Has such easy and convenient "Terms" arrangements?
 5. Makes no packing charges?
 6. Gives you the flats (or pots) with the plants?
 7. Delivers to you, thrifty, growing plants so that you have no "skips" in your planting?
 8. Sends you the plants prepared in such a manner that you can plant them at your convenience?
 9. Provides you free of cost "Service Bulletins" and complete reports on experimental work?

Alright, WHO? Who gives you such Customer Service? Nobody, — but the Appalachian Party. The fact is only the Appalachian Party has even attempted to hand you such a bowl of cherries. And all of that isn't circumstantial evidence. It's fact!

So, get the most. Order your liners from Appalachian. Woe is you if you vote the wrong way or buy your liners elsewhere.

Size, Age, Quality, How to Handle Them, and Squawks.

"How big are the plants?" — "Can they be planted directly to the field, or should they be bedded out?" — "Are they big enough to go into containers?" — "Good questions". To head them off, and to keep the cute little pink tips on our typists' fingers, we shall try not to muddle the facts. Let us explain that because our prices are so low, some individuals may get the impression that we plant the rooted cuttings and then ship them a few weeks later. Some even guess that we root them right in the bands — we don't! Instead, all coniferous (cone bearing) evergreens are rooted in greenhouse benches, banded when they are rooted, and then carried two full growing seasons (spring and fall or fall and spring) in the bands. They are better than one year bedded plants. Shrub cuttings are made in May, June and July, potted in August and early September, and shipped the following spring. Grafts are made in 3" pots (not 2½") and carried a full year in coldframes or greenhouses, depending upon the type of stock they are.

Junipers, Arborvitae, Hemlocks, Boxwoods, Japanese Hollies (*Ilex crenata*), Myrica, Osmanthus, Pieris and Retinosporas should be planted directly to the field or containers. There are a few exceptions to the above. For instance, *Juniperus pfitz. nana*, (the very dwarf Pfitzer Juniper), *Thuja occ. 'Little Gem'*, Japanese Hollies '*helleri*' and '*Stokes Hybrid*', English Dwarf Boxwood (*Buxus semp. suffruticosa*), and any other very dwarf types will probably be covered in field cultivation unless you have the right



kind of cultivating equipment and someone who knows how to use it. However, even these dwarf things should go directly to containers if you are a "canner".

Taxus (Yews), of most varieties don't grow fast, and should not go to the field until they are two of three years old, unless, again you have really good cultivating equipment for small plants, and an operator who has your interests at heart. Pot the Taxus in 4" clay pots, plunge the pots into the ground, and mulch them with old leaves, old sawdust or woodchips. If you want them big, plant the banded liners in outside beds, space them 10 x 10 inches, and shear them at least once each season (late August or September and again in late winter or early spring before they start to grow) to keep them reasonably shaped. Moving from beds to field should be done only in early spring, before they start to grow, or in fall after one or two good frosts. Your 4" potted plants, on the other hand may be put in the field spring, summer, or early fall, just so they have an opportunity to establish before winter sets in.

Shrubs, rooted in spring and early summer, potted or banded in mid to late summer will run 6 to 8 inches for the more dwarf forms, (dwarf varieties of Deutzia, Spiraea, Weigela, etc.) and from 12 to 15 inches for taller growing sorts. Here again, the plants are better than stock from field beds.

Azaleas and Rhododendrons from cuttings are rooted in late summer and fall, potted in fall, and carried in greenhouses 'till the following spring. Greenhouses are carried cool until about March 15th, and then brought up to 65 degrees to promote growth. Species forms of Azaleas and Rhododendrons are from seeds, and are usually three or four years old.

The stock is brought to you by our trucks. You see it before you accept it. Needless to say, we don't want to send stock out on approval. But, if you have a solid reason for sending anything back, note on our delivery sheet an explanation for the return, and tell our driver to take it back. That way our customers have no squawks. Order what you want. You are perfectly safe in buying from us. We'll give you the most for your money.

YOU CAN'T GET JAPANESE BEETLES FROM US!

Everything we have on the place, including stock in pots, bands and in the field is certified by the U.S.D.A. to be free of Japanese Beetles. Ask for certificate if your's is a certified nursery.



Minor Elements

It used to be that when one of these all-wise and all-knowing PHD's got up on the podium and started talking about Minor Elements, we just slipped down on our duff, and caught us forty winks. We figured that the guy was ululating to point out to us how stupid we were, and how profound was his knowledge.



Permit us not to leave the impression that we have now learned all there is to know about Minor Elements. Fact is, the more we read and hear, the more we are inclined to believe that nobody knows too much about them. So you may be just wasting the time it takes you to read this tripe. But we can report to you on an interesting experience.

As all of you know we use no soil, as such, in our potting operations. Instead we use a 50/50 peat-perlite mix (we call it our "PP" mix) with additives to adjust pH (measure of sourness or sweetness of the medium). A couple of years ago we ran into a very nasty and nettling situation which we would like to recount for you.

Any and all plants we grow do well in our PP mix. We prepare two types. One we call the "sweet mix" in which are potted most shrubs and coniferous evergreens. The second mix is the "sour mix" in which are potted ericaceous plants (Azaleas, Rhododendrons, Erica, Pieris, etc.). Complete details of both are set forth in our Service Bulletin #2 which is yours for the asking.

Knowing that Hollies prefer a mix a little sweeter than the ericaceous group, and not as sweet as most shrubs, etc., we mixed up several batches of each and then mixed these batches together. That gave us a medium about halfway between the two from a pH angle.

We potted about 50,000 American Hollies in this mix, and they started off beautifully. They grew vigorously and sturdily for most of the spring growing season. Then in late summer when second new growth appeared they started to show chlorosis (yellowing of foliage) and as winter approached they looked worse. A number of soil tests were made, and pH seemed a bit high, so micronized sulphur in water was applied to lower it. (By the way, Micronized Sulphur is much better for the plants than Aluminum Sulphate. The latter can be toxic.) That seemed to help a little. At least the color was, or we imagined it was, getting no worse. But as spring neared, it appeared that we would be out of the Holly deal. They would not be good enough to ship.



One cold windy day in early spring a brother nurseryman from way down south dropped in to see us. Given a good excuse to stay inside beside our potbellied stove, we started picking his brains. Knowing that he too grew Hollies, among a number of other things, we shamefacedly showed him ours. He said something like this "I believe they need iron. We can't grow Boxwoods, American Hollies (*Ilex opaca*), Japanese Hollies (*Ilex crenata*) or for that matter, any broadleaved evergreens unless we spray them with iron at least two or three times during each growing season." That statement put us on the Minor Element trail.

We immediately started checking over all of the various broadleaved types we grow, and found that in almost every variety, some signs of chlorosis were showing. Then, we promptly ordered some Iron Sequestrene (made by Geigy Agricultural Chemicals, P. O. Box 430, Yonkers, N. Y.) and first treated the Hollies. The plants were just then beginning to "break" new growth. The results were astonishing! Within fifteen days almost all signs of chlorosis had disappeared and within thirty days the color was uniformly deep dark green and the leaves appeared almost as if polished.

Being the nosey type we wanted to know how this stuff works. We wanted to know why the fertilizers we were using failed to furnish all the needed plant foods. We wrote the USDA, Trade Journals, and various Chemical outfits for available literature.

Being limited in the field of science, we here again don't give a toot about the technicalities of how it's made, or the chemical formulae of the various chelates. But we are interested in how and why they do what they do. From the stack of literature before us, we concluded as follows:

One. Almost all soils, because of chemical or mineral makeups "lock up" certain plantfoods.

Two. Iron, zinc, manganese and copper; — four of the Minor Elements ("minor" because they are used by plants in such small quantities), are the ones usually unavailable.

Three. Paradoxically a given soil may contain an overabundance of a certain minor element, and yet it is not available to plants.

Four. While there can be other reasons for chlorosis in plants, in most cases it is generally, or most often, the result of mineral or chemical imbalances.

While we have no intention of leading you into this thing over your hips, we believe you will find it interesting to go along on some more of the infatuating details.

A molecule is a very small part of anything. Molecules are made up of atoms, and if an atom is electrically charged it is called an ion, and if an ion



is charged positive it becomes a cation. Negatively charged, it becomes an anion. There is more to it than meets the eye, but to stop beating around the bush, let's just say that when these cations and anions get together there might be hob to pay. Depending upon the chemical and/or mineral combo of your soil, one group or another (or several combined) can get together and attract and hold one or another of the minerals we call "Minor Elements" in this business of growing plants. When they do get together in this manner they make up a mass which is insoluble in water. You might think of this mass as what would hang onto your magnetized screwdriver if you were to poke it into a box of carpet tacks. As soon as such a mass becomes water insoluble, the plants can't take up the minerals. Just why is for the birds who are more nosey than we are.

Scientists have known about this stealthy conduct of soil molecules for over a hundred years. In fact, this knowledge led to such stupid practices as driving iron or copper nails into trees, which does about as much good as putting a hex on your neighbor's jackass.

Chelates (pronounced kee-lates) are chemicals which keep substances water soluble. You might think of them as the towel if you wrapped a brick in it. They "wrap up" or surround or insulate the molecules of the metals we are talking about. Thus they prevent other ions from grabbing and holding (and thus make them insoluble in water) the molecule you are feeding your plant.

Scientists have been using chelates for quite some years. The reason for the use is to keep molecules from "ganging up" while analytical tests are being made.

In 1951 some smart character at the Univ. of California came up with the thought that chelating metals might be a means of feeding plants these metals. But not much was done with it. In 1955 the Florida Citrus Experiment Station after a series of tests recommended chelated iron for chlorosis in citrus trees. As a result a whole new fertilizing program was born. Geigy Chemicals, with the idea that there might be a buck or two in the deal, picked up the ball and started for home plate. They have done wonders. We don't know any good reason for recommending the Geigy products except that they put out a first class product and they seem such nice people.

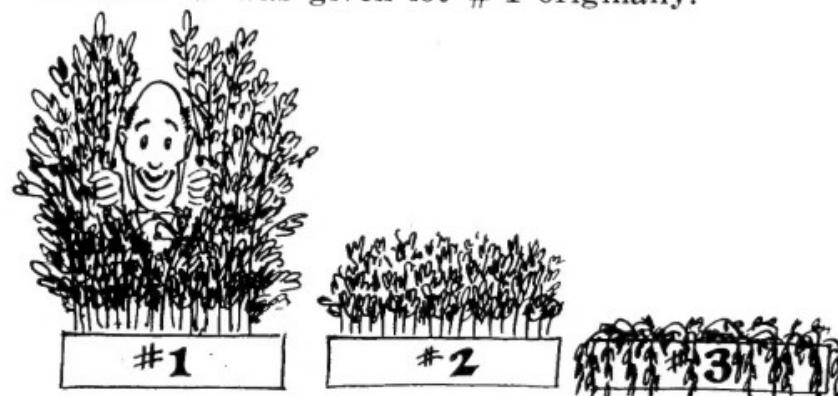
Anyway, with this iron deal in our pocket, we decided to monkey with some more ideas. If we put chelated irons into our fertilizers and added a wetting agent, would the action be quicker and longer lasting. It was! At least it acted quicker. We selected thirty flats, 3 flats each of ten varieties and types of broad-leaved evergreens. All were showing various stages of chlorosis. One flat of each variety (10 flats) were marked # 1. This lot was given a treatment of Rapid Gro, Aqua-Gro, and Iron Sequestrene NAFE com-



bined. Lot # 2 (one flat of each of the ten varieties) was given a treatment of Rapid-Gro and NAFE. The third lot was given only Rapid-Gro which is our normal fertilizing program.

After 15 days there was a marked improvement in lot # 1. The improvement in color varied slightly from variety to variety, but the differences between lots # 1 and 3 was certainly apparent. If anything, lot # 3 had become more chlorotic, while most of the plants in lot # 1 either were a good deep green or showed marked improvement. Lot # 2 was definitely better than lot 3, and the average color was about the same as the poorest in lot # 1.

After six weeks, all plants in lot # 1 were of excellent color, lot # 2 was much improved, and lot # 3 was getting in bad shape, so it was given the same treatment as was given lot # 1 originally.



As of this date (Dec. '60) all three lots look fine. Lot # 1 is 15% to 25% larger in size than either 2 or 3. In fact, there is little difference in size between lots # 2 and # 3, likely because # 3 made little or no spring growth, due to its chlorotic condition, but did make excellent fall growth.

There are a number of interesting tidbits of guesses, information, and fact to point out. In the above described experiment were three flats of *Ilex crenata convexa*. They looked bad - very bad — at the beginning of the test. After treatment as described, new growth on the flatful in lot # 1 came out deep, dark green, while the older leaves remained yellow longer than either *Ilex opaca*, *Ligustrum lucidum*, or *Osmanthus*. In going over the literature we find this passage "Iron does not move readily through the plant from the old leaves to the new ones". Many new leaves were already formed when the treatment was made. As a result of our experience in this case, we'd like to add to that statement the following; "Conversely, iron does not move readily from new foliage to old." Likely that explains in part why the old leaves were draggin' their feet in coloring up.

Another quote. "These plants (Azaleas, Gardenias, Camellias, and Rhododendrons) will grow on alkaline soils if supplied with sufficient iron in available form". We'd like to try that. Somehow it doesn't fit with our way of thinking.

Still another; "Chelates occur very commonly in nature; for example chlorophyll is a magnesium chelate". News to us!



And another; "Under ordinary conditions none of the fertilizer constituents will greatly interfere with the availability of iron. However, if a high amount of phosphate is incorporated into the mixture, and it is allowed to set up, then the availability of the iron for plants will be reduced".

Then, from a USDA bulletin: "Natural chelate materials occur in soils, but they are sometimes not sufficiently stable, effective, or abundant enough to keep some nutrient metals in soluble form for plant needs."

Next, "Chlorosis — describes a yellowing and fading of foliage and is a warning that the plant is developing too little of its vital green — material, chlorophyll".

And, "Of the nutrient metal deficiencies that damage plants, a lack of soluble iron is the hardest for plant grower to correct, zinc perhaps second."

Also, "Overwatering or sudden heavy rains may launch — changes — decreasing the soluble iron supply."

And, "Overdosages of minor elements can be toxic to plants."

And, "Long uses of fertilizers or pesticides may build up trouble making deposits of certain minerals in soil." In one instance "they found excessive deposits of copper (from years of copper sprays) prevented the foliage from getting requirements of iron".

In all of the literature there are warnings that heavy applications of chelates (either iron, zinc, copper, or magnesium) to certain plants may cause "leafburn". For instance, Azalea foliage is very sensitive, but recommended strengths may be applied to the soil with little or no risk of damage. Or mild and repeated applications to the foliage are safe.

In the above we have stressed iron deficiencies because in our part of the country, lack of available iron is usually the cause of plant chlorosis. However, chlorosis may be caused by shortages of available (water soluble) zinc, copper or manganese.

We can't afford the four color plates to give you color pictures of the different leaves showing these deficiencies. There is a difference in the appearance of the foliage in each case.

So if you are vexed by chlorotic plants in your nursery or in some of your pet customer's plantings, write Geigy (Attention Mr. R. E. Hamman) for more dope.



We got a charge out of the pleasant and profitable results, and we are happy to pass the information around.



Banded Shrubs and Evergreens

For 1961 Shipment

2" BANDS EXCEPT AS NOTED

Shipments will begin about May 1st to 10th.
see "Our Truck Delivery Service" pages 34 to 36.

RATES: Prices are "per 100"; 50 or more 2" banded plants at the 100 rate; 24 (a flatfull) or more 3" banded plants at the 100 rate; 300 or more of a single variety at 5% off prices quoted; 1000 or more of a single variety at 10% off prices quoted. Minimum orders, 50 2", or 24 3" banded plants of a variety.

[Please Note: In the descriptive information, first is given the horticultural name, next the common name and ultimate growth (height) of the variety. Next the pH (sweetness or sourness) of soil preferred by the variety.]

ABELIA grandiflora (Glossy Abelia. 4 to 5') pH 6.0 to 7.5.

An excellent shrub which will grow in most soils. $\frac{3}{4}$ " blooms in clusters from midsummer to frost. Hardy in most of Pennsylvania, Ohio and along coast to Boston. 10.00

ACER ginnala (Amur Maple) (3" pots. See Page 33.)

ARONIA melanocarpa (Black Chokeberry. 1 $\frac{1}{2}$ to 3') pH

5.0 to 6.0. Very hardy little shrub with white flowers, black berries in fall and red fall coloring. Prefers loose, somewhat sour soil. 10.00

AZALEAS (See Pages 27 to 31.)

BERBERIS juliana (Wintergreen Barberry 5') pH 6.0 to

7.5. Evergreen. Very thorny leaves and thorny twigs of dense habit. In great demand as a foundation shrub. Small yellow blooms in May followed by black berries in fall. 15.00

BERBERIS juliana nana (Dwarf Wintergreen Barberry. 3 $\frac{1}{2}$ ') pH 6.0 to 7.5. A smaller type of the Wintergreen Barberry; especially desirable for low type homes. 15.00

BERBERIS mentorensis (Mentor Barberry. 5') pH 6.0 to 7.5. Upright type with dark green foliage and excellent fall color. Very drought resistant. Dark red berries. 12.00

BERBERIS thunbergi atropurpurea (Red-leaf Japanese Barberry. 5') pH 6.0 to 7.5. These plants are certified true, and this variety is not the Barberry which carries wheat smut spores over winter. Excellent as a hedge or for specimen planting against any but red painted buildings. Bright red berries. 6.50

BIOTA aurea nana (Thuja orientalis. Beckmann's Golden Arborvitae. 5') pH 6.0 to 7.5. Bright golden yellow foliage; compact, conical growth. Limited quantity. 17.50

BUXUS microphylla compacta Kingsville (1') pH 6.0 to 7.5. Originated by Henry Hohman nurseries of Kingsville, Md. A very dwarf compact plant, much hardier than American Boxwood (*Buxus sempervirens*) and very fine for low hedge or border. Because it is so very slow growing, the one year plants are small, but they are rugged and thrifty. 12.50

BUXUS microphylla koreana (Korean Boxwood. 4') pH 6.0 to 8.0. Hardiest of the known forms of Boxwood. Will grow in partially acid or sweet soils but prefers mulch in summer. 12.50



BUXUS sempervirens (American Boxwood. 12') pH 6.0 to 7.5. Likes good soil well drained. The American Boxwood is hardy over a much greater area than the English. This variety grows satisfactorily throughout the southeastern quarter of Pennsylvania and along the coastal states to Boston. Evergreen with leaves about 1 1/4" long. Not difficult to grow.	12.50
BUXUS sempervirens Welleri (Weller's Hardier American Boxwood. 8 to 10') pH 6.0 to 7.5. Introduced by Weller Nurseries of Holland, Michigan where it seems to grow satisfactorily. Quite hardy and probably can be grown throughout most of the state of Penna. and other states of similar climate. Probably not quite as large growing as the common American Boxwood.	12.50
BUXUS suffruticosa (Old English Boxwood. 3') pH 6.0 to 7.5. This is the true dwarf Old English type. Not as hardy as the American and some winters suffers foliage burn here at Waynesboro. Seems satisfactory along the coastal areas, Eastern Maryland and south. Very fine and very beautiful if it is hardy with you.	13.50
CALICARPA japonica (Japanese Beautyberry. 4 1/2') pH 6.0 to 7.5. Inconspicuous pinkish flowers in early July followed by 3/16" purple berries in fall. Prune heavily in winter to force new growth and thus profuse fruiting.	9.00
CALICARPA purpurea (Chinese Beautyberry. 4') pH 6.0 to 7.5. Planted especially for its early fall purple berries. Blooms are insignificant, but because of great number of berries early in fall it is quite desirable. Easy shrub to grow, and good container item.	8.00
CALYCANTHUS floridus (Strawberry Shrub or Sweet-shrub. 5') pH 6.0 to 7.5. Large glossy leaves. Does well in almost any soil. Fragrant, dark maroon flowers in June. Dried flowers were used by your grandmother for sachet.	8.00
CARYOPTERIS Blue Mist (Hardy Bluebeard. 4') pH 6.0 to 7.5. Lavendar blue flowers August to frost. Sometimes called Blue Spirea.	9.00
CARYOPTERIS incana Azure (Azur Bluebeard or Azure Blue Spirea. 4') pH 6.0 to 7.5. A new and reputedly harder form of "Blue Spirea". Blooms August and September with abundance of deep blue flowers. Prune severely in early spring for best flowering.	11.00
CERCIS canadensis (American Redbud. 25') pH 6.0 to 7.5. This is the native American Redbud or Judastree. A very ornamental small tree or large shrub which blooms in our mountains very early in the spring. Difficult to transplant after 3 to 4', and thus is best grown in a container.	10.00
CERCIS chinensis (Chinese Judastree. 12') pH 6.0 to 7.5. Deeper pink than the American Judastree, and more compact. Blooms more heavily than our native American form.	10.00
CORNUS chinensis kousa (Chinese Kousa Dogwood, 15 to 18') pH 6.0 to 7.0. New with us. Reputed hardier than C. kousa, more compact with larger flowers and larger berries.	15.00
CORNUS kousa (Kousa Dogwood. 18') pH 6.0 to 7.0. Tall shrub or can be trimmed to small tree with large creamy white blooms 2 1/2" to 3" diameter. Large red (1/2" diameter) fruits in fall and winter. Hardy in southern Mass.	12.50
COTINUS coggygria - Rhus cotinus (Smokebush or Purple Fringe. 12') pH 5.5 to 7.5. Pinkish or purplish panicles in great profusion give the plant the appearance of being covered with smoke. The blooms turn gray to brown, and gray fruits follow. Fall color yellow to orange. Will withstand dry situations and poor soil.	10.00



COTINUS coggygria —Red leaved (Red leaved Smokebush) pH 5.5 to 7.5. These are excellent red leaved plants from seeds. They have been “rogued” many times to remove any green leaved or poorly colored plants. At this price they are definitely a bargain. Limited quantity. _____	25.00
COTONEASTER buxifolia (Boxleaf Cotoneaster. 4') pH 6.0 to 7.5. Somewhat loose growing, but very attractive because of small shiny leaves and red berries in fall. Hardy in same area as English Boxwood. _____	12.50
COTONEASTER divaricata (Spreading Cotoneaster. 6') pH 6.0 to 7.5. Arching, spreading plant covered with red berries, and with foliage turning red in fall. One of the best of the Cotoneasters. _____	12.50
COTONEASTER horizontalis (Rockspray Cotoneaster. 3') pH 6.0 to 7.5. One of the most popular of the Cotoneasters. Flat horizontal branches with bright red berries in early fall. _____	15.00
CRATAEGUS phaenopyrum cordata (Washington Hawthorne. 12 to 15') pH 6.0 to 7.5. Can be pruned to a single stem to make highly ornamental tree, or shaped into shrub form for either specimens or border plants. Thorny, with glossy foliage, and long lasting scarlet fruit. _____	12.00
DEUTZIA gracilis (Slender Deutzia. 3') pH 6.0 to 7.5. Dense, compact, slender arching branches with myriads of white flowers in racemes late May and June. _____	10.00
DEUTZIA gracilis rosea or rosea eximea (Rosepanicle Deutzia. 5') pH 6.0 to 7.5. This is a pink counterpart of Deutzia gracilis. Flower clusters are larger and this variety grows slightly taller than D. gracilis. Quite desirable. _____	10.00
DEUTZIA lemoinei (Lemoine Deutzia. 5') pH 6.0 to 7.5. One of the hardiest of the Deutzias with flowers in uprite racemes in late May. _____	10.00
DICENTRA. (Bleedingheart)	
eximia. Fernleaved type. _____	8.00
spectabilis. True old-fashioned. _____	12.50
ENKIANTHUS CAMPANULATUS (Redvein Enkianthus. To 30') pH 5.0 to 6.5. Yellowish or light orange pendulous bell-shaped flowers in mid-May before leaves. Very brilliant scarlet fall color. _____	15.00
ERICA darleyensis (Darley Heath. 2') pH 5.0 to 7.0. Ericaceous plant, but not as insistant upon low pH as many others. This variety will survive under quite poor growing conditions. Blooms pale lilac in very early spring, sometimes through the winter. _____	10.00
EUONYMUS alatus (Winged Spindletree or Burningbush. 8') pH 6.0 to 7.5. Corky barked twigs with long narrow leaves which turn bright scarlet in fall. _____	12.50
EUONYMUS alatus compactum (Dwarf Winged Spindletree or Dwarf Burningbush. 4') pH 6.0 to 7.5. A more desirable shrub than the E. alatus because of its lower and more compact habit. Magnificent bright red fall color. _____	12.50
EUONYMUS europaeus Aldenhamensis (New improved Burningbush. 15') pH 5.5 to 7.5. Foliage held late in fall and turns to brilliant scarlet. Fruit pink and orange. Vigorous, shapely plant. _____	12.50
EUONYMUS fortunei acutus (Wintercreeper. 6") pH 5.5 to 7.5. Very low growing evergreen creeper. Seldom over 6" high. Small deep green foliage with slight reddish tint in winter. Can be trained as a vine, but best as a ground cover. Excellent plant. Quite hardy. _____	11.00
EUONYMUS latifolius (Broadleaf Euonymus. 20') pH 5.5 to 7.5. Large leaves, vigorous, and larger fruits than E. europaeus. Fruits orange in fall with leaves 3-5" reddish beneath, turning red in fall. _____	11.00



EUONYMUS patens or Kiautschovica (Spreading Euonymus. 9') pH 6.0 to 8.0. Evergreen with glossy leaves. Pinkish capsules in spring followed by orange berries in late fall.	11.00
EUONYMUS vegetus (Largeleaf Wintercreeper. 4') pH 5.5 to 7.5. Leaves 1 to 1½" thick and leathery. Sometimes called Evergreen Bittersweet. Abundance of fruit in fall.	11.00
EUONYMUS vegetus erectum , Saracoxie (Upright Euonymus radicans. 5 to 6') pH 5.5 to 7.5. Introduced by Wild Brothers Nurseries of Saracoxie, Missouri. Described as compact and definitely upright; tolerant of hot, dry summers. Will grow in sun or shade. Thick glossy leaves which sometimes drop in extreme cold. However wood is winter hardy over practically all of the United States.	11.00
EUONYMUS yedoensis (Yeddo Euonymus. 10') pH 5.5 to 7.5. Upright — spreading flat topped shrub. Plant in sun or part shade. Brilliant red fall coloring. Fruits pinkish lavender and orange.	12.50
EXOCHORDA giraldi wilsoni (Wilson's Pearlbrush) (3" pots. See Page 33.)	
FORSYTHIA Arnolds Dwarf (2') pH 6.0 to 7.5. New extremely dwarf of weeping form.	9.00
FORSYTHIA Lynwood Gold (5 to 7') pH 6.0 to 7.5. Comparatively new and outstanding. Excellent deep green foliage, erect branches, completely covered with deep yellow flowers.	9.00
FORSYTHIA Mrs. Farrand (?) pH 6.0 to 7.5. New Arnold Arboretum introduction, with especially large flowers.	12.00
FORSYTHIA Spring Glory (6 to 8') pH 6.0 to 7.5. Extremely heavy flower producer. Large pale yellow blooms in profusion.	9.00
FORSYTHIA suspensa sieboldi (Siebold's Weeping Forsythia. 4') pH 6.0 to 7.5. A trailing or weeping form which is excellent for planting on overhanging walls or terraces. Branches touch the ground and root and thus hold the soil in place. Bright yellow blooms in mid April.	9.00
FRANKLINIA alatamaha (Gordonia or Franklinia) (3" pots. See Page 33.)	
HYDRANGEA arborescens grandiflora (Hills of Snow Hydrangea. 3') pH 6.0 to 7.0. Upright dense growing plant with creamy white flowers in large clusters in early July. Prune heavily in late winter or early spring for best flowering. Will grow in shade.	10.00
HYDRANGEA domotoi (Hardy Blue Hydrangea. 3') pH 6.0 to 7.5. One of the so called "French Hydrangeas" with very large clusters (sometimes 12 to 15 inch) of semi-double flowers. In acid soils blooms are light blue, and in sweet soils blooms are clear to deep pink.	10.00
HYDRANGEA paniculata grandiflora (Peegee Hydrangea. 20') pH 6.0 to 7.5. Easily grown shrub with large pyramidal clusters of blooms in August when flowers are scarce. White flowers turn pink and then bronze. Some strains produce small, poorly filled flowers panicles. Ours in large flowering form. May be trained to single or multi-stemmed small tree if desired.	10.00
HYPERICUM Hidcote (New Dwarf Hypericum 2') pH 6.5 to 8.0. Hardier form of Hypericum of very low growth. Large waxy golden yellow flowers practically all summer. Note that it prefers sweet soils.	11.00
ILEX aquifolium (English Holly. 30') pH 5.5 to 7.0. Unnamed varieties, but all female clons selected for exceptional berry bearing quality and all for hardiness. Both male and female unnamed varieties at	35.00



ILEX aquifolium named (English Holly) pH 5.5 to 7.0. Following is a list of named English Hollies, some of which are in small quantities and others in ample supply. They grow to various heights according to variety. Female forms are berry-bearing, but all must have male pollinators.	45.00
fructu-luteo. Nice English type foliage but berries yellow instead of red.	
laurifolia. Male, erect, tall habit. Dark green leaves, smooth with few spines. Bark deep green to purple.	
Mascula. Male form needed for pollination of females. These are unnamed and are offered in unnamed list above at \$35.00 per hundred.	
pyramidalis femina (Ciliata). Attractive purplish-bark with long spines and red berries.	
recurva mascula. A male form of more dense and more dwarfish habit than most. Bark greenish-purple with leaves inclined to be crinkled or twisted.	
Van Tol (Jan van Tol). Smooth, glossy leaves, somewhat convex. Bears early with large dark red shiny fruits.	
ILEX aquipernyi (3') pH 5.5 to 7.0. A hybrid of English Holly x pernyi. Hardy in Philadelphia and along coastal cities, but worthy of trial in many areas. Very dwarfish, stubby growth with excellent foliage and bright red berries. We offer male and female forms. Female minimum 50 plants and male minimum 25 plants.	35.00
ILEX cornuta burfordi (Buford's Chinese Holly. 9') pH 5.5 to 7.0. Extra large bright red berries through fall and winter. Leaves are very thick and leathery and more lustrous than many of the other Hollies. This variety does not need a pollinator to produce berries, but of course without a pollinator, berries will not contain seeds. Hardy in southern Connecticut and on Long Island. Hardy here in Waynesboro.	25.00
ILEX crenata convexa (Japanese Convexleaf Holly. 8') pH 5.5 to 7.0. A very desirable compact hardy evergreen shrub. Usually twice as broad as high. Leaves are convex, and exceptionally fine green. Black berries. No spines.	15.00
ILEX crenata Green Island — Plant Pt'd. 817. pH 5.5 to 7.0. Grows more low and spreading than most I. convexa forms. Dense, horizontal rather than uprite. Makes up quickly and is very handsome plant. One of the finest for modern low-eaved houses.	35.00
ILEX crenata helleri (30") pH 5.5 to 7.0. Very dwarf form. Leaves are very small and branches twiggy but thornless. Probably not as hardy as I. convexa, but does very well in our area.	15.00
ILEX crenata hetzi (4') pH 5.5 to 7.0. Larger leaves than most of the I. crenata, Dwarfish, compact and very pleasing variety. Black berries.	15.00
ILEX crenata latifolia (Bigleaf Japanese Holly. 8') pH 5.5 to 7.0. A dense pyramidal form which may be trimmed in formal shape. Is said to be even more hardy than most crenatas.	15.00
ILEX crenata rotundifolia (Roundleaf Japanese Holly. 6') pH 5.5 to 7.0. Globe shaped form with rounded leaves. Grows dense and compact, and is probably one of the most popular of the I. crenata. Black berries.	15.00
ILEX crenata Stokes Dwarf (Stokes Holly. 18") pH 5.5 to 7.0. Plant patent number 887; this is a new very dwarf variety of extreme hardiness. Unlike many of the dwarf crenata types, the foliage is not straggly, but the plant forms a nice compact specimen. Grows slowly, but we predict it will be in wonderful demand as soon as the stock can be built up in the nurseries.	20.00



ILEX opaca (American Holly. 40') pH 5.0 to 7.0. Unnamed forms but sexes are indicated, and all are from selected northern trees to give us hardier clons. Order male (no berries) or female (berry-bearing). To assure best berry-bearing at least one male should be planted with each three females. _____ 25.00

ILEX opaca named (American Holly) pH 5.0 to 7.0. In the following list of named varieties some are in comparatively small quantities but others are in ample supply. The female Hollies are the berry-bearing form and the male forms provide the needed pollen for the female to produce berries. All male forms can be had in $\frac{1}{2}$ flats (25 plants) without extra charge. All female forms are 50 to flat in minimum quantity. Both Ilex opaca and I. aquifolium should have protection from extreme north and west winter winds until at least their fourth year. Protection from rabbits and deer is also important. Price of all varieties listed below. _____ 35.00

Ardens. Heavy annual bearer with bright fruits of good size.

Cardinal. Female, so named because of its bright red berries. Leaves medium sized, spiny, and of good color. Limited quantity.

Christmas Spray. Rapid growing female with large dark green leaves and good sized red berries on long stems. Prune somewhat heavily while young to prevent legginess.

Clark. Compact with bright red berries on somewhat stubby branches.

Cumberland. A prolific fruit producer of light red berries. Leaves, very dark green of unusually high gloss. Considered glossiest-leaved American holly of today.

David. Heavy blooming male of dense habit. Deep green, small, curved leaves. Excellent pollenator.

Howard. Vigorous growing female of dense columnar habit. Bright shining medium sized berries and dark glossy green leaves. Not hardy here, but satisfactory south of Mason & Dixon line.

Koles Angelica. This is a female form with excellent foliage introduced by Kole of Angelica Nurseries near Reading, Penna. The berries are red, of good size, and foliage handsome. We believe it is too new to determine form of ultimate growth, but young trees appear to grow in form similar to Ardens.

Leatherleaf. A male form with quite large leaf, and as the name indicates, the leaves are thick and leathery.

Mae. Neat slender, well shaped tree with small to medium dark, glossy green leaves and bright red berries.

Maurice River. Vigorous female with red berries, glossy-green foliage and uprite habit. Bears young.

Menantico. Fast growing female setting numerous fruits at young age. Deep green foliage with prominent spines.

Merry Christmas. This variety appeals to us as one of the more desirable. Good green foliage and a dependable bearing habit. Originated at Boyce Thompson Institute, Yonkers, N. Y.

Merry Chirstmas Convex. (Called also "cupleaf") Convex deep green leaves; very interesting because of the crinkly shape. Bears medium sized bright red berries, and bears young.

Millville. Well shaped female with light red berries in profusion. Limited quantity.



Needlepoint. As the name indicates, spines are sharp and long. Excellent red berry-bearing type.

Norfolk. Originated near Norfolk, Va., but hardy here. Heavy berry producer. Good foliage. Spreading type.

Osa. Heavy bearer of dark shiny red berries. Good leaves with good color. Limited quantity.

Richards. Erect growing, broad leaves, quite flat, with large berry clusters. Originated in southern Maryland and recommended for southern planting, but trees do well here, and therefore probably will be satisfactory over all of zone 5 or 10 degrees below zero.

Subintegra. This form probably should be listed as a sub-species type, because we question if it belongs with the opaca forms. The leaves have no spines but are smooth and leathery. It develops into a large shrub or small tree rarely over 12' tall. Large deep red fruits. Hardy to Boston. We offer these in both male (non berry-bearing) and female (berry-bearing). State which you wish.

➤ **Tiny Tim.** Unusually small leaves, hence the name. Dense growing male.

Of the above varieties offered, we have Ardens, Merry Christmas, Merry Christmas Convex, Needlepoint, Norfolk, and unnamed mascula in comparatively large quantities. All others are limited in quantity.

ILEX pedunculosa (Longstalk Holly. 12-15') pH 5.5 to 7.0. Evergreen shrub or small tree with smooth leathery leaves and no spines. Large red berries on the female form. Hardy to Boston. We have both male and female forms. _____ 25.00

ILEX pernyi (Perny Holly. 15') pH 5.5 to 7.0. Very stubby and shrubby growth with sharp spines and bright red berries in fall. Slow growing and most unusual. Hardy here, but north of Harrisburg may suffer some winter damage unless in protected spots. _____ 25.00

ILEX verticillata (Winterberry — Coonberry — Michigan Holly. 8 to 10') pH 5.5 to 7.0. A very hardy deciduous holly with bright red berries in clusters. Branches of berries in big demand for Christmas decorations. Will grow well in any garden soil. These are from seeds and are both male and female. _____ 12.50

JASMINUM nudiflorum (Winter Jasmine. 3') pH 5.5 to 7.0. A low shrub with arching branches. Stems are dark green all year, and foliage is almost evergreen here. Forsythia like flowers in very early spring. Especially desirable over rock walls, terraces, etc. _____ 11.00

JUNIPERUS chin. glauca Nelsons (Nelson's Blue Juniper. 4') pH 5.5 to 7.0. Here is a new Juniper which probably has not been officially named, but which makes up very quickly into a nice compact spreading form, and is very attractive. It is definitely a chin. form, and of the general shape of the J. pfitz. compacta, although it grows more quickly and has a better color. This is a neater evergreen than J. pfitz. glauca and is of better color, and therefore is more than a substitute for the J. pfitz glauca. 15.00

JUNIPERUS chin. pfitzeriana (Pfitzer's Juniper. 8') pH 5.5 to 7.0. Broad and spreading and makes up quite fast. One of our most common and widely planted evergreens. 15.00

JUNIPERUS chin. pfitzeriana compacta (Compact Pfitzer's Juniper, 4½') pH 5.5 to 7.0. Compact form of Pfitzer's Juniper; doesn't grow quite so clumsy and large as common Pfitzers. Most nurserymen who grow this consider this a much better evergreen than J. pfitzeriana. 15.00



JUNIPERUS chin. pfitzeriana nana (Dwarf Pfitzer's Juniper. 3½') pH 5.5 to 7.0. Very dwarf form of Pfitzer's Juniper with darker green foliage. Limited quantity.	17.50
JUNIPERUS communis depressa plumosa (or <i>Horizontalis Plumosa</i> — Andorra Juniper. 2') pH 5.5 to 7.0. Bright green foliage which turns purple in fall. Some nurserymen dislike it because of its winter color, but it makes up fast and probably is the most profitable of the spreading evergreens.	12.50
JUNIPERUS excelsa stricta (Spiny Greek Juniper. 10') pH 5.5 to 7.0. Gray-green foliage. Broad based pyramidal evergreen. Good Garden Shop item.	18.00
JUNIPERUS glauca hetzi (Hetz Blue Juniper. 7') pH 5.5 to 7.0. A fast growing blue-green spreading Juniper. Grows more upright than Pfitzers and makes up quickly. Very popular item.	15.00
JUNIPERUS horizontalis douglasii . (Waukegan Juniper. 1') pH 5.5 to 7.0. Trailing form with steel blue foliage. Excellent ground cover type.	16.50
KERRIA japonica flora plena . (Globe Flowered Kerria. 4 to 6') pH 6.0 to 7.5. Ball shaped double yellow flowers 1½" diameter in mid-May. Stems are green all winter. Flowers are effective over long period and interesting foliage and green stems make it desirable shrub. Three year wood should be pruned out to keep plants thrifty.	12.50
KOLKWITZIA amabilis (Beautybush. 7') pH 6.0 to 7.5. Upright arching branches completely covered with tubular pink flowers in June. Oftentimes again in the fall some bloom will show. Reddish fall foliage.	12.50
LABURNUM vossi (3" pots. See Page 33.)	
LEIOPHYLLUM buxifolium (Box Sandmyrtle. 18") pH 5.0 to 6.5. Likes sour well drained soil. Dense, leafy bush with abundant, small, waxy white flowers in May. Brownish green fall and winter foliage. Excellent for use to face Rhododendrons which are inclined to become "leggy" in a few years.	15.00
LIGUSTRUM ibota regelianum (Regal Privet. 5') pH 6.0 to 7.5. Very hardy, horizontal branching and very neat appearing. Desirable.	9.00
LIGUSTRUM ibota vicary (Golden Ibota Privet. 5') pH 6.0 to 7.5. Foliage golden yellow all season. Neat compact shrub. Very popular as a "canned" item.	9.00
LIGUSTRUM lucidum Pillar — Plant Pt'd. 1664. (Glossy Privet. ?) pH 6.0 to 7.5. A new and hardy form of "lucidum" introduced by us last year. It has withstood temperature to zero, and promises to be one of the really desirable new types. We believe it will be satisfactory over most of zone 5 which means temperature to about 10 below zero.	16.00
LIGUSTRUM lucidum Suwanee River . (Plant Patent No. 1402) pH 6.0 to 7.5. A new and distinctive spreading form of "Lucidum" or "Wax Privet". Excellent deep green foliage. Plant grows lower and more spreading than the species. Excellent container item. Rated hardy along the east coast to and including Long Island.	32.00
LONICERA fragrantissima (Fragrant Honeysuckle or Winter H. 6') pH 5.5 to 7.0. In spite of our feeling that this is one of the "cheap" shrubs, we continuously have inquiries for it. Blooms mid-April here with white flowers tinged yellow, and a fragrance like the most costly perfumes. Foliage is almost evergreen. Red berries in fall attract birds by the hundreds.	10.00
MAHONIA aquifolia (Oregon Hollygrape. 4') pH 6.0 to 7.5. Lustrous dark green leathery leaves. Pyramidal spikes of bright yellow flowers, followed by grapelike fruits in early summer. Thrives under adverse conditions. Easily grown. Can be shaped or kept low. Holly-like leaves cause it often to be mistaken for a form of holly.	13.50



MAGNOLIAS — (3" pots. See Page 33.)

MYRICA pensylvanica (Northern Bayberry. 5') pH 5.0 to 6.5. Deciduous shrub with fragrant semi-evergreen leaves. Hardy from Newfoundland to Maryland along seashore. Does well in well drained soil, even if soil is very poor. We are growing it in domestic peats. The gray berries of the shrub were used by the Colonists in candlemaking for incense-like fragrance. ----- 13.50

OSMANTHUS ilicifolius (aquifolium) (Holly Osmanthus. 12') pH 5.5 to 7.0. Handsome holly-like evergreen with spiny dark green leaves. Excellent ornamental plant which does well in sun or partial shade. Fragrant yellow green flowers in July and bluish black berries in fall. ----- 12.50

PHILADELPHUS albatre (Lemoine's Mockorange Albatre. 5') pH 6.0 to 7.5. Double flowering very desirable form Compact grower and if anything preferred to *P. virginalis*. ----- 10.00

PHILADELPHUS corn. aureus (Golden Mockorange. 4') pH 6.0 to 8.0. Dwarfish form with bright golden color. One of the most popular of golden leaved shrubs. We are booked up on this variety for the time being, but we invite your order for later delivery. We are in position to supply large quantities on later delivery schedules. ----- 12.50

PHILADELPHUS Enchantment (Lemoine's Mockorange Enchantment. 6 to 7') pH 6.0 to 8.0. Double white flowers in thick panicles, somewhat similar to Bouquet Blanc. ----- 12.50

PIERIS japonica (Japanese Andromeda. 5') pH 5.0 to 6.0. White flowering broadleaved evergreen. Blooms May. One of the easier ericaceous plants to grow, but must have reasonable drainage. One of our biggest sellers. ----- 15.00

PRUNUS laurocerasus schipkaensis (Cherry-laurel. 12') pH 6.0 to 7.5. Leathery, shiny evergreen leaves. Grows rapidly and excellent for large buildings or as a screen on the smaller property. A most serviceable shrub. ----- 17.50

PRUNUS laurocerasus zabeliana (Zabel Cherrylaurel. 12') pH 6.0 to 7.5. A form of Cherrylaurel, hardy over most of Penna., Ohio, much of New York and to Boston. Thrifty grower with dark shiny evergreen leaves. Very popular. ----- 17.50

PYRACANTHA cocc. lalandi (Laland's Firethorn. 8') pH 6.0 to 7.5. Semi-evergreen here. In protected spots foliage remains all winter. Planted for its great profusion of orange berries in clusters in fall and winter. Probably the hardiest of the *P. coccinea* group. Should be grown in containers because roots range over wide area, making it difficult to transplant. Makes up fast. One of the finest money-makers for both nurseries and Garden Shops. ----- 12.50

(3" pots. See Page 33.)

PYRACANTHA cocc. pauciflora (5') pH 6.0 to 7.5. Low dense habit and very thorny with yellowish-red fruit. Hardy and well suited for hedges or specimens. ----- 12.50

PYRACANTHA crenulata rogersiana (Rogers Firethorn. 9') pH 6.0 to 7.5. Small leaves as compared to *P. lalandi*. Berries are deep orange-red in large number in fall and winter. Possibly not as hardy as *lalandi* but much in demand where it can be grown. Plant in containers. ----- 12.50

PYRACANTHA crenato-serrata - yunnanensis (Yunan Firethorn. 8') pH 6.0 to 7.5. A red berried form possibly not as hardy as the other variety listed, but does well here in Waynesboro. Another good container item. ----- 12.50

PYRACANTHA yellow berry (We don't know the name) pH 6.0 to 7.5. A clear yellow berried form we found in a Landscape Nursery, and we have no idea what its proper moniker might be. It is a nice plant, — upright like *lalandi*, but the berries are a canary yellow. ----- 15.00



RETINOSPORA obtusa crippsi (Golden Hinoki Cypress. 6') pH 5.5 to 6.5. Lemon yellow foliage; slow growing. Many Retinosporas are considered cheaper evergreens. but the obtusas definitely are first quality plants. _____	22.50
RETINOSPORA plumosa (Plumed Falsecypress. 20') pH 6.0 to 7.0. Broad pyramid with lacy pale green foliage. One of the types which makes up quickly and is considered a low cost plant. Good Garden Market item. _____	12.50
RETINOSPORA plumosa aurea (Golden Plumed Falsecypress. 20') pH 6.0 to 7.0. A golden tipped form of the above with similar characteristics. _____	12.50
RETINOSPORA plumosa aurea Golddust or Lovetti (Golddust Falsecypress. 12') pH 6.0 to 7.0. Quite attractive form of the R. plumosa. Not as fast growing, and more dwarfish and regular than most in this group. Excellent Garden Market item. _____	12.50

RHODODENDRONS

These Rhododendrons are on their own roots. That means they are from rooted cuttings. They make up into salable plants more quickly than grafted Rhododendrons, and are healthier, stronger, and sturdier.

For centuries nurserymen have been grafting desirable varieties of Rhododendrons. The standard procedure has been to first grow seedlings of *Rhododendron ponticum*. When the seedlings were large enough to graft, they were potted up and brought into the greenhouses. During the winter months, sprigs (or scions) of the desirable varieties were then grafted onto the *R. ponticum* roots.

Many times, by using large scions, the plants would have good appearance and were sold the following spring. That, of course, was unwise. Unless the receiving nurserymen understood that the grafts were only recently made, and the graft unions could not possibly be reasonably healed, he might not handle them carefully enough, and the graft unions would become damaged. The result would be that the plants would be certain to die during the hot summer.

Although you may give them the very best of care, graft unions of Rhododendrons never heal properly and well. Even after several years, strong winds, animals, or machinery may break off the whole top of a grafted Rhododendron. If not completely broken off, such mechanical damage may loosen the graft union. Then diseases and insects get in and the plant soon dies.

Rhododendrons on their own roots are not grafted, and thus have no graft union weaknesses. They make up faster into salable sizes of plants.

Some of the varieties offered in this list have been in plantbands for nearly a year. Others were rooted during the past winter. Some varieties make up much faster than others, so there is variation in the sizes of the plants. But all are heavily rooted, and fine first-class stock.



The Plants are in 4 x 4 x 4" plantbands with 12 to the flat. So you need order but 12 of a variety if you wish an assortment.

Some are in comparatively short supply, so order early.

All are in 4" plantbands; 12 plants to flat; please order in multiples of 12. Rates shown are 100 rates but apply to flatfuls of 12 plants.

At \$60.00 per C.

CATAWBIENSE GRANDIFLORUM: One of the best for foliage. Rosy-purple flowers. Medium height.

RAMAPO: Small leaved, dense with a mass of orchid colored flowers.

ROSEUM ELEGANS: Dense plant with mauve pink blooms in midseason. The best all around landscape plant. Easiest to grow. Medium height. Very hardy.

WINDBEAM: Excellent hardy foliage and plant habit. Multiple trusses of delicate pink smothering whole plant when in bloom. Semi-dwarf.

At \$75.00 per C.

ALBUM ELEGANS: Upright vigorous, white with slight lilac tint. Late blooming.

CATAWBIENSE BOURSault: Lilac, tinged rose. An excellent hardy variety. Midseason. Medium height.

CUNNINGHAM WHITE: Dense compact plant with white blooms early in season. Medium height.

ENGLISH ROSEUM: Midseason; rose, tinted lilac blooms.

IGNATIUS SARGENT: Large, individual light red flowers with paler throat; late; medium height.

PARSONS GLORIOSUM: Dark lilac-rose flowers and large dark green leaves; midseason. Medium height.

PURPUREUM GRANDIFLORUM: Foliage dark green; purple flowers. Medium growing.

ROSEUM PINK: A select form of R. Elegans, with same good plant habit; large trusses of clear pink flowers. Medium height. Very hardy.

WILSONI: Low spreading habit with narrower dark green leaves and clear rose-pink blooms. Good foundation plants, and excellent for planting in front of taller growing hybrids.

At \$90.00 per C.

ABRAHAM LINCOLN: Red flowers on strong growing plant. Good green foliage.

CARACTACUS: Late purplish crimson blooms on well growing plant of medium height.

CATAWBIENSE ALBUM: White selection from native R. catawbiense. Excellent habit of growth; dwarf and compact. Clear white. Large blooming.

CHARLES BAGLEY: A cherry red Rhododendron of medium height and first class hardiness.

CHARLES BEAUFORT: White fragrant flowers. Very hardy. Excellent foliage.



At \$90.00 per C. (Continued)

DECATROS PINK: The stock for this variety came from the Dexter Estates many years ago. It is hardy here, and one of the finest clear pinks.

DR. V. H. RUTGERS: Comparatively low growing, red blooms slightly fringed.

EVERESTIANUM: Rosy-lilac fringed blooms; midseason; low growing.

GENERAL GRANT: Soft rose blooms on stout medium growing plant. Good growers.

GIGANTEUM: (rose) Large growing plant with large blooms. Rose pink. Hardy.

LADY ARMSTRONG: (medium rose hardy) Flowers are fuchine pink with purple marking. Quite handsome. Good grower.

LEES DARK PURPLE: Large, deep purple trusses backed by dark wavy foliage; late. Medium height.

MME. CARVALHO: Large white flowers late in season. Medium tall. Limited supply.

MRS. C. S. SARGENT: Rosey red; medium height; very hardy.

ROSEUM SUPERBUM: Medium tall with light pink to soft rose blooms. Good grower.

At \$100.00 per C.

AMERICA: Red blooms on spreading plant; medium height. One of best. Midseason.

BOULE DE NEIGE: Compact, low growing, early white.

CAROLINE: Large, fragrant pale orchid flowers. Early mid-season. Excellent foliage. Very hardy. Gable hybrid.

CONEWAGO: Gable hybrid. Delicate pink with slight bluish shading. Amaranth rose blooms in great profusion. Dwarf. Midseason. Hardy.

MAY DAY: A new (1932) introduction. Scarlet blooms on thick dark green leaves. Blooms midseason. Reported hardy and excellent grower.

NOVA ZEMBLA: Vigorous growing red with excellent foliage. Some growers report it as vigorous as Roseum Elegans, but it has not proved so with us.

PIONEER: Gable hybrid. Evergreen hybrid of mucronulatum. Very hardy and free flowering. New and excellent. Clear pink blooms in great profusion. Dwarf. Will stand full sun early.

SPECIES AND ASSORTED RHODODENDRONS

CAROLINIANUM (species — Carolina Rhododendron. 5') pH 4.5 to 6.0. Of dwarf compact stature. White to pink blooms, later than most hybrids. Prolongs blooming season and useful to face the larger growing forms which are inclined to become somewhat "leggy" as they grow older.

17.50

CATAWBIENSE COMPACTUM (Compact Catawba Rhododendron. 5 to 6') pH 4.5 to 6.0. As with nearly all Catawba forms, buds first show deep red, and as they open turn to dark pink with slight purple tinge. Flowers



are quite large and showy but should be used with white, cream, or yellow blooming plants. If used with reds or pink, (or in front of red brick wall) most catawbiense specie will appear drab. If used as suggested they offer very showy and pleasing color contrast. Limited quantity.	17.50
FORTUNEI (species — Fortunes Rhododendron. 8') pH 4.5 to 6.0. Large funnel shaped, fragrant, pale pink flowers. Not as hardy as <i>R. catawbiense</i> forms, but satisfactory here.	17.50
HYBRID SEEDLINGS Grown from seeds from red blooming plants. Needless to say, not all will produce red blooms, but all colors may be expected.	
2" bands	17.50
3" bands	35.00
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RIBES alpinum (Alpine Current. 6 to 7') pH 6.0 to 7.5. The little yellowish green flowers don't amount to much but in late summer the scarlet berries are beautiful. The foliage is most attractive — its dark green and color helps to make it desirable.	10.00
SALIX purpurea nana (Purpleosier or Blue Asiatic Willow. 4') pH 6.0 to 7.5. One of the better dwarf willows. Excellent as a hedge or for planting in moist places as specimens. Quite popular.	8.00
SPIRAEA Anthony Waterer (Dwarf Red Spirea. 3') pH 6.0 to 7.5. One of the most popular of the dwarf Spireas. Pleasing plant with profuse red flowers in late June. If old blooms are removed before they harden, blooming period can be greatly prolonged. Excellent item in general nursery as well as Garden Shops.	9.00
SPIRAEA bumalda crispa (Varigated crisp leaved Spirea. 24 to 30") pH 6.0 to 7.5. We are not too sure about the ultimate height, but list it according to growth compared with Spirea Anthony Waterer. "Crispa" grows more slowly. Deeply cleft, crinkled or twisted leaves, varigated deep yellow through a series of colors to green. Blooms a little lighter red than Anthony Waterer, but as with A. W., if blooms are cut before hardening, will continue to bloom most of summer. Interesting foliage and flowers. Limited quantity.	11.00
SPIREA coccinea japonica (Japanese Dwarf Spirea. 30") pH 6.0 to 7.5. A new, slightly more dwarf, and deeper red flowers than Spirea Anthony Waterer, but of same general form. By keeping old bloom heads cut off, plant can be kept flowering most of spring and summer. Cut out about one half of branches to the ground each spring for more and better flower heads.	11.00
SPIRAEA collosa alba. (Also <i>S. albiflora</i> . 1½') pH 6.0 to 7.5. Dense compact low shrub with profuse white flowers in flat clusters in July. Excellent when planted with the red flowering forms of Spirea.	10.00
SPIRAEA margaritae (Margarita Spirea. 4') pH 6.0 to 7.5. One of the better Spireas with rose pink flat clusters of bloom in June. Like most of the Spirea of this form it blooms best when trimmed back each season to 1'. Blooms are on new wood.	10.00
SPIRAEA vanhouttei (Vanhoutte Spirea. 6') pH 6.0 to 7.5. Oftentimes called "Improved Bridalwreath". Profuse white flowers in clusters on graceful arching branches. Hardy and very widely planted.	9.00
SYRINGA vulgaris (Common Lilac. 12-20') pH 6.0 to 7.5. These are from seeds and bloom about 95% the fragrant lilac bloom you are accustomed to. Plants are vigorous and grow in almost any soil.	12.50
TAXUS baccata adpressa stricta (Shortleaf Uprite English Yew. 4 to 5') pH 5.5 to 7.5. Compact uprite small growing form with short needles. Slow growing and good.	13.50



TAXUS baccata dovastonii aurea-variegata (Yellow Dovaston.) pH 5.5 to 7.5. A golden form which might be classified as something of a novelty. Quite a handsome plant, and may be used for color contrast with dark green forms.	13.50
TAXUS baccata repandens (Spreading English Yew. 2') pH 5.5 to 7.5. Horizontal Yew with graceful arching branches. Rarely grows over 2' in height. Excellent dark green. Probably the hardiest of the English forms.	16.00
TAXUS cuspidata spreading (Japanese Spreading Yew. 6') pH 5.5 to 7.5. The most popular of all the spreading Yews. Eventually grows quite large for average foundations. Makes up comparatively fast so nurserymen like it well.	13.50
TAXUS cuspidata capitata (Upright Japanese Yew. 15') pH 5.5 to 7.5. Like most of the cuspidata Taxus, this variety will eventually grow quite big. If kept trimmed to pyramid form, it is one of the most handsome of the Japanese forms. For average foundation plantings it can be kept within bounds for 20 years or more by yearly shearing. We grow them from both tip cuttings and seeds, so please specify which you prefer.	16.00
TAXUS cuspidata compacta-brevifolia (Compact Japanese Yew. 5') pH 5.5 to 7.5. A more compact form of Japanese Yew which is more suitable for foundation planting on average low roofed homes. Slower to make up than <i>T. cuspidata</i> , but more desirable.	13.50
TAXUS cuspidata densiformis (Dense Yew. 6') pH 5.5 to 7.5. Dense compact spreading type. Grows more slowly than <i>cuspidata</i> with better color.	15.00
TAXUS cuspidata nana-brevifolia (Dwarf Japanese Yew. 4') pH 5.5 to 7.5. Slow growing, and yet one of the most desirable of all the Japanese forms. Several similar types are offered as <i>T. cuspidata nana</i> , but are actually compact forms similar to those listed above. We offer the true slow growing dwarfish form.	13.50
TAXUS cuspidata nigra (Dark Green Taxus. 5') pH 5.5 to 7.5. The argument still persists. Is it a 'cuspidata' or 'media'. Really it doesn't make much difference. It is a dark green form with large needles, and grows well in spite of adverse conditions. Spreading, grows quickly and well.	13.50
TAXUS intermedia (Hybrid Yew. 6') pH 5.5 to 7.5. Spreading form of very good character. Not as bulky and large as <i>T. cuspidata</i> .	13.50
TAXUS media Andersoni (Anderson Yew. 7') pH 6.0 to 7.5. Broad base, vase shape. Good color and good grower.	13.50
TAXUS media brownii (Brown's Yew. 6') pH 5.5 to 7.5. A broad upright form which has become extremely popular. Makes up somewhat fast and thus from a nurseryman's standpoint is desirable. Good fine dense deep green.	13.50
TAXUS media columnaris Moonii (Moons columnar Yew) pH 5.5 to 7.5. Broad columnar form of excellent hardiness with good foliage color.	13.50
TAXUS media hatfieldii upright (Hatfield's Pyramidal Yew. 8') pH 5.5 to 7.5. Of the many hybrids originally introduced by Hatfield, from a commercial standpoint, this upright form, and one of the best of the spreading types have been selected by nurserymen over the years. This is a broad columnar form with excellent foliage, good color, with dense upright branches.	13.50
TAXUS media hatfieldii spreading (Hatfield's Spreading Yew. 3') pH 5.5 to 7.5. A hybrid of English and Japanese Yews of spreading form with good color and dense foliage.	13.50
TAXUS media hicksii (Hick's Columnar Yew. 10') pH 5.5 to 7.5. Similar to the Irish Yew (<i>T. baccata</i>) but much more hardy. Upright columnar and needs but little pruning; an excellent rich glossy green plant.	13.50



TAXUS media hunnewelli (Hunnewell's Spreading Yew. 6') pH 5.5 to 7.5. Spreading form of excellent foliage. Is inclined to more uniform growth than many of the spreading Yews. Gets somewhat large for low types of houses, but nurserymen like it because it makes up reasonably fast.	13.50
TAXUS media thayeri (Thayer Yew. 8') pH 5.5 to 7.5. A large broad Yew. Sometimes twice as broad as high with almost horizontal branches. Often pruned by nurserymen to broad, low conical shape.	13.50
TAXUS media vermeullen (Vermeullen Yew) pH 5.5 to 7.5. Pyramidal type with compact dense foliage. Broad base as compared to hicksi which it resembles.	13.50
TAXUS media wardi (Wards Yew. 4') pH 6.0 to 7.5. Low spreading but compact plant. You do your customers a favor when you use or recommend this variety for modern low thatched homes.	13.50
TAXUS media wellesleyana (Wellesley's Yew. 8') pH 5.5 to 7.5. Broad based uprite form with dark green foliage. Very satisfactory plant.	13.50
TAXUS mixed. (And we mean mixed.) pH 5.5 to 7.5. Every year we buy hundreds of thousands of Taxus cuttings because we don't have enough of our own. Most of our sources are careful to see that we get what we buy and label carefully, but here is a good illustration. Last year we ordered 35,000 taxus cuttings of two varieties from a friend. Ten bags with about 2000 cuttings to the bag came in. No labels. We made them up and stuck them. Then we called our friend for variety information. Answer: the nine bags with the blue printing were browni, and the one bag with the red printing is hatfield uprite. We thought all were of one variety. We made and stuck them waiting for an invoice. All were mixed together. That's one mix we have. Another lot of densiformis, Adams pyramidal, and intermedia are thoroughly mixed because of a booboo on the part of someone who refuses to be named. You might get 50 intermedia and two Adams, or you might get all Adams. Who knows? Anyway, the plants are too nice to throw away, and as long as they last the price is	10.00
THUJA occ. elegantissima (Golden Tip Arborvitae. 15') pH 6.0 to 7.5. This is probably the best of the golden tipped Arborvitae. Uniformly broad pyramid with good dense foliage. One of the lower priced evergreens.	12.50
THUJA occ. douglasii (Douglas Arborvitae. 15 to 20') pH 6.0 to 7.5. Hardy, pyramidal and dense with somewhat crinkled foliage. Good color.	12.50
THUJA occ. globosa Nova. (Globe Arborvitae. 3') pH 6.0 to 7.5. Globe shaped bushy plant, so well known it hardly needs description. This is a new clon selected for its better color.	12.50
THUJA occ. globosa Woodwardii (Woodward's Globe Arborvitae. 4') pH 6.0 to 7.5. Usually a little broader than tall. Good color. We have a limited quantity.	12.50
THUJA occ. nigra (Dark Green Arborvitae. 15 to 20') pH 6.0 to 7.5. A more symmetrical compact type of American Arborvitae. Comparatively new. Green instead of brown winter color. Hardy, compact; shears well.	12.50
THUJA occ. plicata (Giant Arborvitae) pH 6.0 to 7.5. Narrow pyramidal type which makes up quickly. Branches well to ground, and foliage is good and quite dense. Quick turnover item.	12.50
THUJA occ. pyramidalis (Pyramidal American Arborvitae. 25') pH 6.0 to 7.5. Well known uprite form. Universally popular. Stands shearing very well.	12.50
THUJA occ. wareana (Ware's or Siberian Arborvitae. 12 to 15') pH 6.0 to 7.5. Broad pyramid with rugged steel green, close, compact, heavy foliage. Does well under adverse conditions.	12.50



VIBURNUM burkwoodi (Burkwood Viburnum. 6') pH 6.0 to 7.5. Vigorous growing semievergreen with glossy dark green leaves. Fragrant flowers of blush-pink in mid-May. One of the better shrubs.	22.50
VIBURNUM carlesi (Koreanspice Viburnum. 4') pH 6.0 to 7.5. One of the very fragrant snowball types of Viburnum with black berries in early fall and reddish foliage in fall. These are own root plants.	15.00
VIBURNUM chenaulti (Chenault Viburnum. 6') pH 6.0 to 7.5. A new variety similar to V. burkwoodi, but somewhat lower growing, and more compact.	22.50
VIBURNUM dentatum (Arrow-wood. 12') pH 6.0 to 7.5. Very hardy and vigorous shrub which will grow well in almost any soil. Creamy white flowers in early June followed by blue berries in fall. Glossy red fall color.	10.00
VIBURNUM juddi (Judd Viburnum.) pH 6.0 to 7.5. New and outstanding origination of the Arnold Arboretum. Similar to V. carlseii, but not as large growing with darker leaves and larger flowers.	22.50
VIBURNUM opulus-amERICANUM (Hibush Cranberry. 12') pH 6.0 to 7.5. Dense vigorous plant with white flowers and long lasting red berries.	9.00
VIBURNUM opulus steriLis (Snowball. 8 to 10') pH 6.0 to 7.5. Very hardy and sturdy shrub which is covered with round, snowball shaped white blooms in May and June. Does well in adverse (poor soil, dry or hot) locations. Plant lice (aphids) love it and often will disfigure foliage and bloom, if not controlled. Almost any insecticide, sprayed on in late April or early May will kill the bugs and the plants then will be very showy and beautiful.	10.00
VIBURNUM rhytidophylloides (Lantanaphyllum Viburnum. 8') pH 6.0 to 7.5. A new Viburnum introduced by Arnold Arboretum. Leaves are larger than V. rhytidophyllum and foliage color is a better green. Grows in almost any soil, and while we show the height of 8', it may eventually become larger.	22.50
VIBURNUM setigerum (also theiferum — Tea Viburnum. 8 to 9') pH 6.0 to 7.5. A brilliant and spectacular plant in fall and winter. Somewhat narrow, uprite with flat clusters of blooms in early July, followed by clusters of scarlet berries.	13.50
VIBURNUM sieboldi (Siebold Viburnum. 30') pH 6.0 to 7.5. Creamy white flowers in flat clusters in May followed by red to black berries in summer. Long leaves with desirable branching habit and red fall color.	12.00
VIBURNUM tomentosum (Doublefile Viburnum. 8' (pH 6.0 to 7.5. White flowers borne in flat heads in June. Red to black berries.	12.50
WEIGELIA Abel Carriere (Abel Carriage Weigela. 9') pH 6.0 to 7.5. Probably the most desirable of the pink blooming Weigelas. The flowers are large and in profusion, and the plant is much more attractive than the old Weigela.	9.00
WEIGELA Eva Rathke (Red Flowering Weigela. 5' pH 6.0 to 7.5. One of the most popular deciduous shrubs. Excellent red blooms in large numbers beginning in mid-May. More or less a specialty with us.	9.00
WEIGELA floribunda (Crimson Weigela. 8') pH 6.0 to 7.5. A more uprite form of greater hardiness than some of the other red Weigelas. Blooms are crimson and appear in May.	9.00
WEIGELA nana variegata (Variegated Weigela. 5') pH 6.0 to 7.5. Light pink flowers in May and June. Planted especially for its variegated leaves which actually appear to be hand painted. Dwarf compact habit.	9.00
WEIGELA vaniceki (Vanicek's Weigela — Cardinalflower — Newport Weigela. 5') pH 6.0 to 7.5. Hardier and a better grower than W. Eva Rathke. Vigorous shrub with larger flowers, and more of them than any of the red blooming Weigela we know. It starts blooming heavily in mid-May and in favorable seasons bears some flowers along almost until frost. When in full bloom it is just as beautiful as any of the finest red Azaleas. We consider it one of the best shrubs we grow.	10.00



AZALEAS

Prices are "per 100"; 50 or more 2" banded plants at the 100 rate. Minimum orders, 50 of a variety.

GABLES HYBRID AZALEAS: This group contains plants of a wide range of colors; some are very dwarf; others tall and uprite. We consider the Gables of the best for our area where temperatures range to and sometimes below zero.

Prices: 2" bands \$15.00 per 100.

BIG JOE. Spreading medium height. Early midseason. 2½" purplish violet. One of Joe's best.

BILLY GABLE. Low dense, bright pink.

BOND STREET. Medium spreading; midseason; 2" single; pink.

BOUDOIR (18G) Spreading; late midseason; single 1½"; violet red with darker blotch.

CAMEO (2G) Uprite; medium height; late; full double flowers; 1½" shell pink.

CAMPFIRE (F3G). Round spreading, low; very hardy; single hose-in-hose; 1½" brilliant red.

CAROL (B8G) Low, late midseason; single hose-in-hose; 1¼"; violet red; very hardy.

CAROLINE GABLE (96G) Tall uprite; hardy; late midseason; single hose-in-hose; 1½" red with darker blotch.

CHEROKEE. Low to medium height. Late with single flowers 1¾"; striking orange red.

CHINOOK (11G) Tall uprite; early midseason; single hose in hose 2½"; orange red.

CORSAGE (16G) Medium spreading; strong grower; single 2½" orchid; fragrant.

ELIZABETH GABLE (21G) Spreading; medium height; late; single frilled; 2½" red with darker blotch; very hardy.

FLAME GABLE (C4G) Medium height; early midseason. Flame red.

GABLES POUKHANENSIS HYBRID (51G) Low spreading; early midseason; very hardy; single 3"; orchid pink.

HERBERT (47G) Spreading; medium height; early midseason; single hose-in-hose; frilled; 1¾" reddish violet.

JAMES GABLE (F1G) Tall, spreading; early midseason; single hose-in-hose; 2" red with darker blotch.

LORNA (C8G) Low, dense, spreading; late double hose-in-hose; 1¾"; free growing violet red.

MARYANN (38G) Low, dense, spreading; midseason; semi-double; 2¼" violet red; profuse bloomer.

MARY FRANCES HAWKINS (C3G) Tall, spreading; late; single; hose-in-hose; 2"; pink; hardy.

MILDRED MAE (69G) Tall, vigorous spreading; early mid-season; single 2¾"; reddish violet with brown blotch.

MONTROSE. Medium height; spreading; early midseason; 1½" rose pink.

MRS. C. C. MILLER. Medium height, very late, bright orange-red. Quite hardy.

OLD FAITHFUL. Early midseason; single; 2¼" reddish violet.



POLARIS. Late midseason; single hose in hose, 2½". White with faint chartreuse throat.

PURPLE SPLENDOR (C1G) Tall; uprite; midseason; single hose-in-hose; frilled 1¾" dark purple.

ROSEBUD (B5G) Low, spreading, dense; double rose-like blooms 1¾". Deep pink or violet red.

ROSE GREELEY (D3G) Low spreading; dense; early midseason; single hose-in-hose; white; sweetscented.

ROYALTY (A27G) Low, spreading, late double; 1½" reddish violet.

STEWARTONIAN (R5G) A recent introduction by Mr. Gable. Described as one of his best reds. Dependable bloomer and one of the very finest.

SUSAN (54G) Spreading; medium hardy; very late; single; 2¼" salmon pink.

152G. Medium height; midseason; single deep pink.

GLENN DALE AZALEAS: Until the '54-55 winter, this group was thought by many nurserymen to consist of varieties which could be classed as dependably hardy only as far north as Baltimore and Washington. However, the winter of '54-55 sorted the sheep from the goats. Many of the Glenn Dales went through several nights of 5 to 8 degrees, and not only suffered no damage, but set full crops of blooms. Others of the Glenn Dale group did show much winter damage, but of the varieties listed below all came through in fine condition. Most of this group are especially desirable for extremely large flowers, which of course makes them very showy plants.

Prices: 2" bands \$15.00 per 100.

APHRODITE. Erect branches on low shrub; midseason; free flowering; 2" pale rose pink.

BUCCANEER. Erect, early; 2" brilliant orange-red.

GAIETY. Spreading, medium height; single; 3" rose pink; late midseason.

GLACIER. Upright; medium height; early midseason; single; 2¼"; white; very fine.

HARLEQUIN. Spreading, medium height, single 2" white flake violet. Late midseason.

NERISSA. Medium height; spreading; single; 1½"; pink with faint yellow; very fine.

TREASURE. Medium height; spreading; early midseason; single 3½" to 4½" white; better than indica alba which it resembles.

KAEMPFERI HYBRID AZALEAS: Most are tall, and hardier than the Kurumes; handsome plants, with ample blooms; and they follow each other to cover a long period of the season. Excellent growers; very little pampering required.

Prices: 2" bands \$15.00 per 100.

ALICE. Medium height; early midseason; single 2"; camellia rose with dark blotch.

BETTY. medium height; uprite; early midseason; single; 2"; red.



CARMEN. Tall, uprite; early midseason; single; 2½" crimson red with brown blotch.

FEDORA. Medium height; uprite; early midseason; 2" violet red.

FLAME. Medium, uprite; 2"; flame red.

GRETCHEN. Medium height; uprite; late midseason; single; 2" reddish violet with blotch.

MAROON. Tall, compact; midseason; single 2½" to 3"; maroon.

MRS. DOORENBOS. Medium height; uprite; single 2¼"; vermillion red.

OTHELLO. Medium height; uprite; early midseason; single 2"; claret red.

KURUME AZALEAS: America's best known and most popular group of evergreen Azaleas. Most are dwarf in habit of growth, although some few are uprite. All are dense and shapely. Most bloom early or early midseason.

Prices: 2" bands \$15.00 per 100, except hinodegiri and hexe which are \$12.50 per 100.

AMOENA (Amoenum) Medium tall; spreading; dense; early midseason; single; hose-in-hose; 7/8"; violet red; quite hardy.

AMOENA SUPERBA (Amoenum) Same as above but dark purple.

BRIDESMAID. Low, compact. Single. Light salmon.

CARMINITA SPLENDENS (Amoenum) Medium height; spreading; dense; early midseason; bright red.

CORALBELLS. Low spreading; early midseason; single; hose-in-hose; 1½"; deep pink.

DOUBLE HINODEGIRI. Same as hinodegiri except that blooms are hose-in-hose.

ELEANOR ALLEN. Similar to Hinodegiri in growth, etc., but blooms are fine pink.

FIREFLY (Exbury hybrid) Spreading; early midseason; deep orange.

FLAME KURUME. (Proper name Benefudi) Low; early, evergreen; salmon.

HEXE. Spreading; low, dense; late midseason; hose-in-hose; 1¾"; violet red.

HINOCRIMSON. Spreading; medium height; early midseason; 1½" red.

HINODEGIRI. Spreading; medium height; early midseason; single; 1½" red.

MARJORIE ANN (Pericat) Spreading, low dense; early mid-season; semi-double; 1¼" red.

PINK PEARL. Low compact, deep pink.

SALMON BILLS. Low spreading; early midseason; single; hose-in-hose; 1½"; salmon pink.

SALMON BEAUTY. Uprite medium height; early midseason; single hose-in-hose; 1¾" red.

SHERWOODI (or Sherwood Orchid). Medium height; spreading; early midseason; 2"; orchid; harder than most in Kurume group.



SHERWOOD CERISE. Same as above, but with cerise pink blooms.

SHERWOOD RED. Same as above but with blood red blooms.

SNOW. Medium height; uprite; dense; early midseason; single; hose-in-hose; excellent white.

SWEETBRIAR. Medium height; spreading; early midseason; single hose-in-hose; 1½"; white flushed red.

MUCRONATUM AZALEAS: Hardy along the East Coast to Long Island. Most varieties have delicate fragrance. Vigorous growing plants, with large flowers.

Prices: 2" bands \$15.00 per 100.

DELAWARE VALLEY WHITE. Large single snow white blooms midseason. Hardier than indica alba.

VUYKIANA AZALEAS: These are reported to be hybrids of a mollis variety and kaempheri. That should give them unusual hardiness. In any event, late blooming, large flowers, and good colors make these very desirable Azaleas.

Prices: 2" bands \$15.00 per 100.

ANTIQUE. Medium height; very double; 2¾"; deep pink; very fine blooms three weeks after hinodegiri.

DOUBLE RED. Medium height; spreading; 2½"; late midseason; double red.

HELENA VUYK. Medium height; single; 2½" violet red with darker blotch.

MOZART. Medium height; 2½"; single; late midseason; violet red.

PALESTRINA. (or Wilhelmina) Medium height; single; 2¼"; white with chartreuse blotch; late midseason; very fine white.

QUEEN WILHELMINA. Medium height; compact; large 3½" single blooms; late; orange red.

ROSE RED. Medium height; compact; late; 3½" single; deep rose.

SPECIES AZALEAS: These are natives of America and the Orient. As a whole they are very hardy. All are nursery grown from seeds and are 2 year or 3 year plants.

ALBRECHTI. Originated central and northern Japan; deciduous (not evergreen); uprite of medium height; habit similar, and flowers slightly smaller than schlippenbachi, 2"; early, rose bengal; really beautiful in bloom; hardy. --- 12.50

EXBURY HYBRIDS (from seeds). Evergreen Azaleas developed by Lionel de Rothschild at his Estate near Southampton, England. Most are large flowers, red, with few pinks. Usually late blooms on large growing plants. Limited quantity. --- 15.00

KAEMPERI HYBRIDS (from seeds). Likely of any color and form from open pollinated seeds. --- 12.50

KNAPHILLS (from seed) If we described them we would sell too many. We have only 200. --- 17.50



GHENT HYBRIDS (from seed) Deciduous uprite, tall, bloom late. Look much like <i>A. mollis</i> when small. Winter hardy to 15/25 below zero. Blooms from pure white thru pink, orange to deep red, often flushed or shaded a second or even third color. Most are yellow, pink and orange. Limited quantity.	15.00
MOLLIS HYBRIDS. Tall uprite; deciduous; single 2½" to 3"; blooms from pure white through yellow orange, pink to red.	12.50
MUCRONULATUM: Medium tall; spreading; deciduous; very hardy; Korean and Siberian native. Blooms early and freely with Forsythia; single 2", pleasing rose purple.	12.50
POUKANENSIS. (Korean Azalea). Persistant leaved, but not evergreen as Kurumes, etc. Low, spreading, early mid-season; single 2"; reddish violet. Mild fragrance; very hardy.	12.50
VISCOSUM. (Swamp Azalea). Hardy from Maine to South Carolina. Mostly uprite forms, densely branched. Blooms in July; 1 to 1½" flowers spicy scent. Very hardy.	12.50



PATENT NOTICE

Several items in this list are patented. In each case in the descriptive matter, the U. S. Patent number is cited. The prices shown include the royalty, and no further charges will be assessed. In no case does the patent holder of any of these items require you to sell at any specified wholesale or retail minimum prices. You set your own selling prices.

You are not permitted, however to propagate any of these patented items, either from cuttings, grafts, or otherwise for either your own use or for sale. It is only under this condition that these patented items are sold.

Because of differences in growing conditions, grading, etc., from nursery to nursery, we have always felt that established or required prices on patented shrubs or evergreens, either wholesale or retail, mean little or nothing. It is easy to overgrade or under-grade, and thus defeat the purpose of established prices.

So, in getting agreements from the various patent holders to require that our quoted prices for the liners shall include all of their royalties, and to forget your selling price angle, we believe we have overcome the major objections to patented plants.



NEW

NEW



AUGUSTINE ASCENDING ELMS

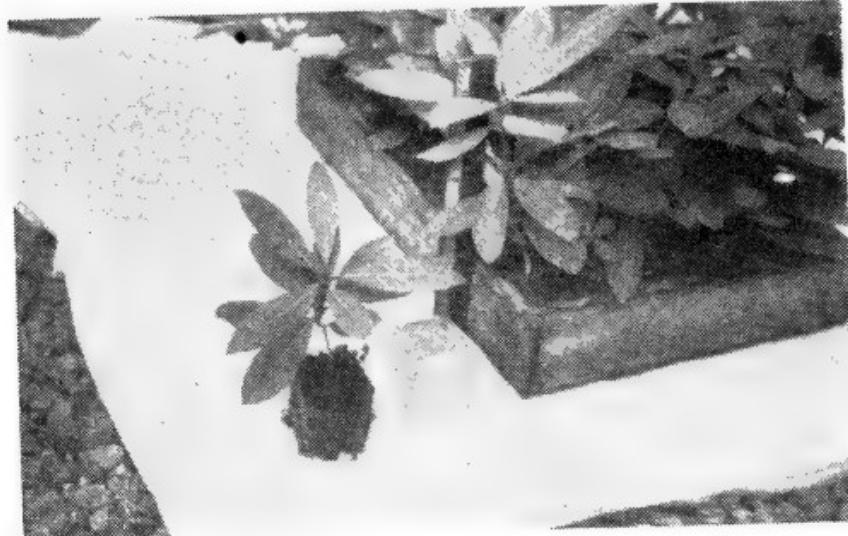
We are licensed by the Augustine Ascending Elm Associates, Inc. of 932 E. 50th Street, Chicago 15, Illinois to propagate and offer liners of this rugged and highly desirable tree. Sturdy, rapid growing, columnar tree. One of the very finest as a street tree, for Parks, Schools, cemeteries, etc. where tall growing trees are desirable. Columnar, uprite habit, with strong upright branches.

3" pot grafts (units of 20) 15 to 24"

20, or 40 @ \$1.75 ea.

60, 80 or 100 @ \$1.50 ea.

101 to 300 @ \$1.25 ea.





Liners in Clay Pots

Prices are "per 100"; 11 - 4" pots make a flatfull, and you'll do us a favor if you order in units of 11: 100 rates apply to 11, or multiples of 11. 20 - 3" pots make a flatfull and 100 rates apply to 20 or multiples of 20; not less than "flatfulls" are sold. Pots go with the plants.

ACER ginnala (Amur Maple. 20') pH 6.0 to 7.5. Small tree with comparatively small leaves and extremely hardy. Winged fruit conspicuous because of its scarlet color. A good small tree for specimen or screening. 3" pots. 25.00

CEDRUS deodara (Deodar Cedar. 75 to 100') pH 6.0 to 7.5. Large growing silvery gray green soft needles. Broad base, cone shaped. Called the sacred tree of India. Hardy here and east to Philadelphia. 35.00

EXOCHORDA giraldi wilsoni (Wilson's Pearlbrush. 15') pH 6.0 to 7.5. The most floriferous of the Pearlbrushes with the largest flowers. Vigorous grower and no doubt the best of the Pearlbrushes. Grafts in 3" pots. 40.00

FRANKLINIA alatamaha (Gordonia or Franklinia. 30') pH 5.0 to 6.0. A rare small tree with 3" white flowers with yellow stamens in Sept. to frost. Red and orange foliage in fall. This plant should be planted in peaty soil and mulched through winter. 3" pots. 35.00

LABURNUM vossi or watereri (Long cluster Goldenchain. 25') pH 5.5 to 6.5. Small tree of comparatively rapid growth. Clover shaped leaves. Long drooping racemes of fragrant, deep yellow flowers, suggestive of yellow Wisteria borne on a tree. 85.00

MAGNOLIAS.

soulangeana (Saucer Magnolia. 15 to 18') pH 5.0 to 7.0. Huge pink flowers in great numbers in May before leaves appear. The most popular and best known, but blooms so early that we usually lose the flowers here. In spite of that fact it is still our most popular local Magnolia. — 3" pots. 35.00
4" pots. 50.00

soulangeana alexandrina (Alexander Saucer Magnolia. 15 to 18') pH 5.0 to 7.0. One of the best growers of the Chinese Magnolias. Blooms are darker in color and somewhat later to appear. — 3" pots. 35.00
4" pots. 50.00

soulangeana nigra (Purple Magnolia. 15 to 18') pH 5.0 to 7.0. Dark purple outside white inside of flowers in early June. This one is always satisfactory with us, because it misses our last freeze. — 3" pots. 35.00
4" pots. 50.00

stellata (Star Magnolia. 8 to 10') pH 5.0 to 7.0. Fragrant semi-double star shaped white flowers in mid-April before leaves. One of the higher priced Magnolias. 3" pots. 35.00

PYRACANTHA cocc. lalandi (Laland's Firethorn. 8') pH 6.0 to 7.5. Semi-evergreen here. In protected spots foliage remains all winter. Planted for its great profusion of orange berries in clusters in fall and winter. Probably the hardiest of the P. coccinea group. Should be grown in containers because roots range over wide area, making it difficult to transplant. Makes up fast. One of the finest money-makers for both nurseries and Garden Shops. 3" pots. 35.00

VIBURNUM lantana (Wayfaring Tree. 15') pH 6.0 to 7.5. Very hardy large bush with flat clusters of flowers in mid-May, followed by berries which turn slowly green to red and then black in winter. Birds love them. Does well in poorer dry soil. 15.00



Our Truck Delivery Service

It might appear that we have become a bit snobbish about it, but we'd like to mention that none of our competitors, as of this date, has "topped" us on delivery service. In fact, none has come near. When you get hundreds of unsolicited letters and notes yearly that read, "Stock was beautiful", — "Arrived in fine shape", — or "Good stock, good service, and courteous deliveryman" — or similar — you know you're on the ball. We bow our head with thanks to you who praise it with us.

Routing, driving, timing, and equipment maintenance are all programmed to sum up as economical as possible. The savings are passed on to you as lower rates and better service.

Here are samples. The rates are for a flatfull of plants. A flatfull is any one of the following;

- 50 — 2" bands
- 24 — 3" bands
- 12 — 4" bands
- 20 — 3" clay pots
- 11 — 4" clay pots
- 6 — 5" clay pots

Minimum charge for a stop is \$2.00. Rate A is per flat for any number of flats up to and including 19 flats; rate B is for 20 to 99 flats; Rate C is for 100 to 269 flats; Rate D is for 270 flats or more.

CONNECTICUT:	A	B	C	D
Bridgeport	.75	.67	.50	.34
Danielson	.83	.74	.55	.37
Hartford	.79	.70	.53	.35
New London	.79	.70	.53	.35
Putnam	.83	.74	.55	.37
Torrington	.75	.67	.50	.34
Waterbury	.75	.67	.50	.34

DELAWARE:	A	B	C	D
Dover	.53	.47	.35	.24
Milford	.59	.52	.39	.26
Selbyville	.59	.52	.39	.26
Wilmington	.53	.47	.35	.24

ILLINOIS:	A	B	C	D
Bellville	1.05	.93	.70	.47
Bloomington	1.01	.90	.68	.45
Cairo	1.09	.97	.73	.49
Centralia	1.05	.93	.70	.47
Chicago	1.01	.90	.68	.45
Freeport	1.09	.97	.73	.49
Jacksonville	1.09	.97	.73	.49
Joliet	1.05	.93	.70	.47
Lincoln	1.05	.93	.70	.47
Mount Vernon	1.05	.93	.70	.47
Paris	.98	.87	.65	.44
Peoria	1.05	.93	.70	.47
Rock Island	1.09	.97	.73	.49
Springfield	1.05	.93	.70	.47



INDIANA:	A	B	C	D
Bedford	.98	.87	.65	.44
Connersville	.90	.80	.60	.40
Elkhart	.90	.80	.60	.40
Evansville	1.01	.90	.68	.45
Indianapolis	.90	.80	.60	.40
Lafayette	.94	.83	.63	.42
Muncie	.90	.80	.60	.40
New Albany	.94	.83	.63	.42
South Bend	.98	.87	.65	.44
Terra Haute	.98	.87	.65	.44
Valparaiso	1.01	.90	.68	.45
Vincennes	1.01	.90	.68	.45

IOWA:	A	B	C	D
Davenport	1.09	.97	.73	.49
Des Moines	1.24	1.10	.82	.55
Sioux City	1.39	1.23	.92	.62

MAINE:	A	B	C	D
Bangor	1.01	.90	.68	.45
Brunswick	.90	.80	.60	.40
Presque Isle	1.13	1.00	.75	.50
Sanford	.86	.77	.58	.39
Waterville	.94	.83	.63	.42

MARYLAND:	A	B	C	D
Annapolis	.48	.42	.32	.21
Baltimore	.42	.37	.28	.19
Cambridge	.48	.42	.32	.21
Cumberland	.42	.37	.28	.19
Frederick	.36	.32	.24	.16
Salisbury	.59	.52	.39	.26

MASSACHUSETTS:	A	B	C	D
Boston	.83	.74	.55	.37
Fall River	.83	.74	.55	.37
Great Barrington	.75	.67	.50	.34
Newburyport	.86	.77	.58	.39
Northampton	.79	.70	.53	.35
Plymouth	.86	.77	.58	.39
Rockland	.83	.74	.55	.37
Springfield	.79	.70	.53	.35
Worcester	.83	.74	.55	.37

MICHIGAN:	A	B	C	D
Adrian	.90	.80	.60	.40
Ann Arbor	.90	.80	.60	.40
Bay City	.94	.83	.63	.42
Cadillac	1.01	.90	.68	.45
Cheboygan	1.05	.93	.70	.47
Detroit	.90	.80	.60	.40
Flint	.94	.83	.63	.42
Lansing	.90	.80	.60	.40
Muskegon	.98	.87	.65	.44

NEW HAMPSHIRE:	A	B	C	D
Berlin	.94	.83	.63	.42
Franklin	.86	.77	.58	.39
Keene	.79	.70	.53	.35
Lebanon	.83	.74	.55	.37
Manchester	.83	.74	.55	.37
Rochester	.86	.77	.58	.39

**NEW JERSEY:**

	A	B	C	D
Camden	.53	.47	.35	.24
Elizabeth	.64	.57	.43	.29
Newton	.70	.62	.47	.31
Ocean City	.64	.57	.43	.29
Trenton	.64	.57	.43	.29

NEW YORK:

Albany	.75	.67	.50	.34
Babylon	.64	.57	.43	.29
Binghampton	.70	.62	.47	.31
Buffalo	.70	.62	.47	.31
Elmira	.64	.57	.43	.29
New York City	.64	.57	.43	.29
Ogdensburg	.83	.74	.55	.37
Plattsburg	.86	.77	.58	.39
Poughkeepsie	.75	.67	.50	.34
Rochester	.70	.62	.47	.31
Utica	.75	.67	.50	.34

OHIO:

Ashtabula	.75	.67	.50	.34
Cincinnati	.83	.74	.55	.37
Cleveland	.75	.67	.50	.34
Columbus	.75	.67	.50	.34
Dayton	.83	.74	.55	.37
Defiance	.90	.80	.60	.40
East Liverpool	.64	.57	.43	.29
Mansfield	.79	.70	.53	.35
Portsmouth	.79	.70	.53	.35
Sandusky	.79	.70	.53	.35
Springfield	.83	.74	.55	.37
Toledo	.86	.77	.58	.39
Wooster	.70	.62	.47	.31

PENNSYLVANIA:

Bradford	.64	.57	.43	.29
Carbondale	.64	.57	.43	.29
Easton	.53	.47	.35	.24
Johnstown	.48	.42	.32	.21
Lock Haven	.59	.52	.39	.26
Philadelphia	.53	.47	.35	.24
Punxsutawney	.48	.42	.32	.21
Sharon	.75	.67	.50	.34
Washington	.64	.57	.43	.29
Williamsport	.59	.52	.39	.26

RHODE ISLAND:

Any Point	.83	.74	.55	.37
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VIRGINIA:

Alexandria	.42	.37	.28	.19
Bristol	.79	.70	.53	.35
Petersburg	.53	.47	.35	.24
Roanoke	.59	.52	.39	.26
Suffolk	.64	.57	.43	.29
Winchester	.39	.35	.26	.18

WEST VIRGINIA:

Charleston	.75	.67	.50	.34
Clarksburg	.59	.62	.39	.31
Huntington	.79	.70	.53	.35
Martinsburg	.39	.35	.26	.18
Morgantown	.53	.47	.35	.24
Parkersburg	.70	.62	.47	.31
Princeton	.70	.62	.47	.31
Wheeling	.64	.57	.43	.28



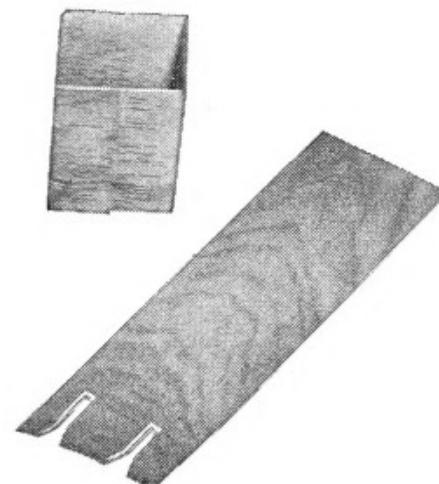
CYPRESS PRODUCTS

NEW PRICES AND SOME BARGAINS

Some twenty odd years ago we unveiled a new idea in a substitute for clay pots.

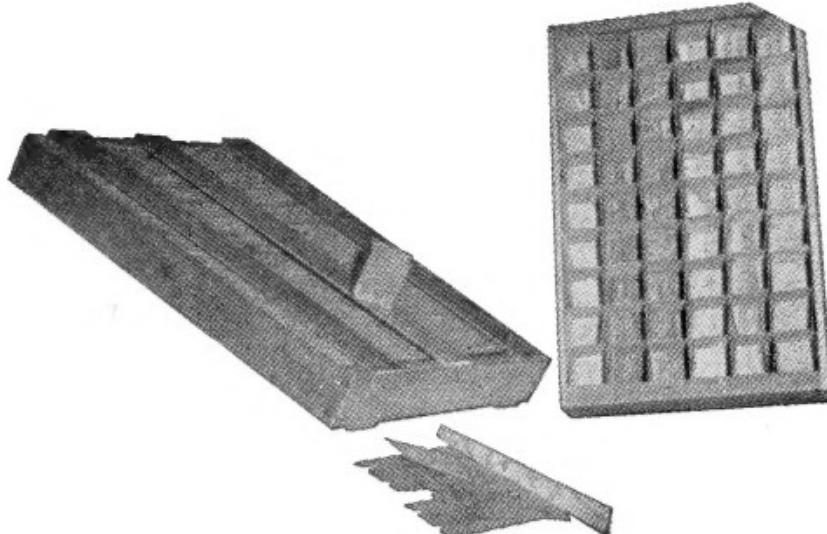
Plantbands made of tarpaper, cottonwood, gum, and poplar were on the market. We were trying all of them. The wooden bands rotted out after 60 or 90 days in soil. Tarpaper prevented good moisture and air circulation. We tried preservative treating of the bands, but the cost of material plus labor were as much as the cost of the bands, flat and setting up the bands altogether.

Then we hit upon the idea of making bands of Cypress. As new pot substitutes have come on the market we have tried those that looked most likely.



But as of now we haven't found anything that will match cypress for plants that will be in the bands for 12 months or more.

It doesn't take a very fertile brain to understand why bands are more economical than pots. With pots you pick them up and lay them down individually. Bands are handled by the flatful. Potting (or banding), storage, and even watering costs are all lower by $\frac{1}{4}$ to $\frac{1}{2}$.





Some fifteen years ago we introduced cypress plant baskets. These are simply strips of cypress veneer, cut and scored at proper places for the sides and bottoms. You hand shape them and staple at both ends to make a rectangular plant basket into which



are transplanted four, six or twelve bedding, vegetable or other plants. Plantbaskets should be set up in greenhouse flats, and the plants grown in them from transplant stage, and sold in the plant basket. Handy, they are; — and economical too.

Today cypress in the South is getting scarce and expensive. Unions, Minimum wage and very lenient Unemployment Compensation Laws, all have combined to make cypress logs cost about six times what they did ten years ago. So, with the trend of the times it becomes necessary to revamp prices. However such plantbaskets as we have on hand are being offered at old price schedule until they are sold.

Here are the old and new prices.

PLANTBASKETS

with bottoms (not stapled)

Inches	Old Prices Per M	New Prices Per M	You Save Per M	On Hand
3 x 3 x 3	9.00	17.53	8.35	57,000
3½ x 3½ x 3½	10.00	20.00	10.00	3,000
2½ x 5¼ x 2½	10.00	18.35	8.35	16,000
2½ x 5½ x 2½	10.50	18.85	8.35	15,000
2½ x 6 x 2½	11.00	19.80	8.80	12,000
2½ x 6½ x 2½	11.50	20.50	9.00	20,000
2½ x 4½ x 3½	10.50	20.75	10.25	20,000
2½ x 5¼ x 5¼	12.60	29.00	16.40	21,000
2½ x 6¾ x 4½	13.10	29.95	16.85	6,600

Use Old Prices When Ordering.

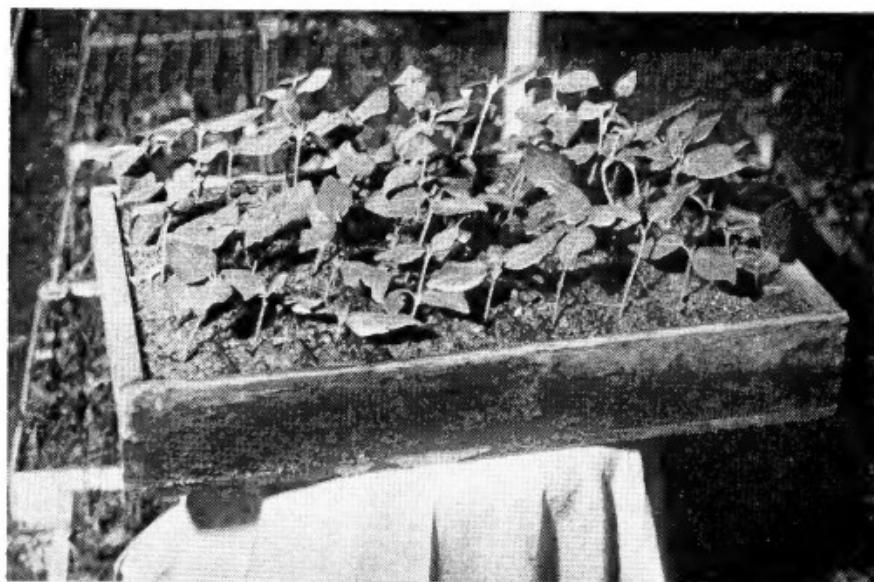


When this lot of plantbaskets is sold we will no longer carry them. Instead Cypress logs will be held for plantbands. We have no old stock of plantbands and new prices are as follows (f. o. b. Waynesboro);

Inches	
1 $\frac{3}{4}$ x 1 $\frac{3}{4}$ x 2 $\frac{1}{2}$	Discontinued
2 x 2 x 2 $\frac{1}{2}$	5.40 M
2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3	5.75 M
3 x 3 x 3	7.00 M
3 x 3 x 4	9.00 M
4 x 4 x 4	11.50 M



High School Girls like to set up bands.



Viburnums — last August

BULK RATE

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POSTMASTER: — RETURN POSTAGE GUARANTEED

APPALACHIAN NURSERIES

WAYNESBORO, PENNA.



A few thousand Seedling Transplants